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November 24, 1997

VIA MESSENGER
Stuart P. Hersh, Esq.
Assistant Regional Counsel
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Lenz Oil Superfund Site

Dear Mr. Hersh:

Enclosed are comments submitted on behalf of the Lenz Oil PRP Group for consideration by the National Remedy Review Board. We trust you will provide them to the Board members promptly. We apologize for not being able to submit these comments earlier, but, as you know, we learned of the Board's intention to review the Lenz Oil remedy only a few weeks ago.

Please call if you have any questions.

Sincerely,

Alan P. Bielawski

APB/gi
Enclosures

cc: Mary Tierney, USEPA
Gerald Wilman, IEPA
Susan Horn

PRP COMMENTS
NRRB REMEDY REVIEW

I. INTRODUCTION

The Potentially Responsible Party Group* (Group) submits the following comments regarding remedy selection at the Lenz Oil Site. These comments conclude that Alternative 2 represents the best remedial strategy for addressing the Lenz Oil Site and is compatible with CERCLA, and USEPA's regulations and guidance. In addition, the Group notes that Records of Decisions (RODs) have been signed for sites with similar conditions that include components equivalent to Alternative 2.

At the outset, it should be emphasized that the RI/FS for Lenz Oil actually is the third phase of a three-phase remediation initiated by the Illinois Environmental Protection Agency. Phase I included inventorying waste onsite, preventing offsite drainage, installing monitoring wells, and collecting surface and subsurface soil and groundwater samples. Phase II consisted of an interim removal action that remediated most of the site. Approximately 21,000 tons of soil and sludge, 250,000 gallons of liquid waste source material, and 200 drums were incinerated at a cost of about $9 million. As a result, only a relatively minor amount of LNAPL source material remains to be addressed in Phase III.

The RI/FS has been completed at a cost of about $2 million for consulting fees and oversight costs. The results indicate that up to 44,000 gallons of LNAPL source material has migrated offsite through the subsurface to an adjacent property (the Tameling Property). Thus, over 90% of the contaminants associated with the Lenz Oil Site already have been removed and treated through incineration. The Group believes that these previously treated contaminants constitute 100% of the principal threat wastes at Lenz Oil.

Among other recommendations, USEPA recent guidance states:

> "The reasonably anticipated future land use at a site is significant in defining principal threat waste areas. Pursuant to the NCP and the 1995 land use guidance, current land use and reasonably anticipated future land use should be considered in identifying realistic exposure scenarios for estimating site risks. When the baseline risks associated with the reasonably anticipated future land use trigger action, the definition of principal threat wastes may be determined by the reasonably anticipated future land use scenario as well."
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> * * *
>
> "Although nonaqueous phase liquids (NAPLs) are generally viewed as principal threat wastes, program experience has shown that removal and/or in-situ treatment

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* The Group is comprised of approximately 215 parties who performed the Remedial Investigation/Feasibility Study (RI/FS) for the Lenz Oil Site.

> of NAPLs may not be practicable. Hence, EPA generally expects that the quantity of free-phase NAPL (i.e., "free product") should be reduced to the extent practicable and that an appropriately designed containment strategy should be developed for NAPLs that cannot be removed from the subsurface." Rules of Thumb for Superfund Remedy Selection, USEPA, August 1997.

The offsite LNAPL area has been purchased by a landscape business for storage of landscaping materials. This area currently is used for this purpose as well as for one residence. The LNAPL is on the water table and effectively is capped by at least 5 feet of clean natural soils. The only residential well has been abandoned, and the basement of the residence has been the focus of an air monitoring study, which concluded that there is no risk of exposure resulting from the site. Therefore, there are no exposure pathways that are complete for current or reasonably anticipated future land uses. Under the circumstances, the residual LNAPL is not a principal threat waste and containment should be an acceptable alternative to USEPA. Indeed, Alternative 2 exceeds USEPA's requirements by including not only a barrier trench for containment, but also recovery trenches to remove residual LNAPL. Moreover, even if LNAPL were considered a principal threat waste, the existing site conditions are consistent with USEPA goals calling for 90% removal of principal threat wastes.

In summary, upon implementation of Alternative 2, the following remedial measures will have been completed for the Lenz Oil Site: (1) removal and incineration of over 90% of contaminants; (2) installation of passive collection trenches to intercept residual LNAPL; (3) installation of a barrier trench to contain LNAPL; (4) contingency plans for groundwater extraction; (5) long-term monitoring; and (6) deed restrictions covering land and groundwater use. The total cost of this remedy (including the $11 million already spent) is estimated to be approximately $16.9 million. The Group submits that this alternative is superior to the other alternatives discussed in the FS, including Alternatives 9A and 10.

II. NATURE AND EXTENT OF CONTAMINATION

The areal extent of LNAPL remaining at the Site is depicted in Figure 1. Figure 2 presents a cross-section of the area. The LNAPL area is estimated to cover about 67,000 square feet (1.5 acres). The actual thickness of the LNAPL is estimated to average about 2 inches, which yields a corresponding volume estimate of 44,000 gallons. The smear zone associated with the LNAPL averages 3.5 feet in thickness. Because the water table ranges from 6 to 8 feet below ground surface, the surface and shallow soil within 5 feet of ground surface is uncontaminated.

The LNAPL consists principally of diesel fuel and motor oil. In addition, PCBs, volatile organic compounds (VOCs) and metals have been detected in LNAPL samples. These latter substances have a strong affinity for the LNAPL. As a result, the soil and bedrock within the smear zone have significantly lower concentrations of these substances compared to the LNAPL. Also, groundwater beneath the LNAPL and down-gradient of the LNAPL essentially is free of contamination. The LNAPL has not produced a dissolved plume of contamination.

The baseline risk assessment and updated risk evaluation show that as a result of the extensive remedial action conducted by IEPA, the following exposure pathways no longer exceed unacceptable risk levels (i.e., additional cancer risk range of 10^{-4} to 10^{-6} and a hazard index of 1):

- exposure to drainage ditch
- recreational use of Des Plaines River
- onsite trespasser
- adjacent resident
- short-term worker

The only risk that continues to be deemed unacceptable is associated with the unlikely scenario of a future resident installing a well through the LNAPL and drinking the groundwater. Reducing the risk to an acceptable level by removal of the LNAPL would require that more than 99% of the remaining LNAPL be removed, which, as a practical matter, is not achievable. Therefore, institutional controls such as deed restrictions are necessary, and are included for each alternative discussed in the FS. These restrictions will not interfere with the beneficial use of the property because public water supplies are available to serve potential water users, and anticipated future land use does not require excavation or penetration below the ground surface.

III. CONSIDERATION OF REMEDIAL ALTERNATIVES**

A. Alternative 2

1. Description

As depicted in Figure 1, Alternative 2 consists of the following components:

- **Passive LNAPL Collection** - Four trenches would be constructed within the LNAPL area. Free-phase LNAPL would be collected, removed and incinerated offsite. The most down-gradient trench would serve as a barrier to prevent any migration of LNAPL.

- **Deed Restrictions** - Deed restrictions would be established to prevent the installation of wells and excavation below the ground surface. These restrictions will not interfere with the beneficial use of the properties. A public water main is present to supply water. In addition, adjacent properties are used for a used automobile recycling operation and a storage area for a landscaping business. Deed restrictions would not interfere with the development of the Site for similar uses.

** Because of time and page limitations, these comments address only EPA's proposed remedial alternatives (Alternative 9A and 10) and the PRP Group's preferred alternative (Alternative 2).

- **Natural Attenuation with Groundwater Remediation Contingency** Groundwater immediately beneath and around the LNAPL area is essentially uncontaminated. Contaminants within the LNAPL have a stronger affinity for the LNAPL and do not readily dissolve into groundwater. The portion which dissolves into groundwater appears to be naturally attenuated. If long-term monitoring reveals that natural attenuation is not effective, Alternative 2 includes a contingency to pump the groundwater from five extraction wells located down-gradient of the LNAPL collection system, to be discharged to the local POTW.

2. Overall Protection of Human Health and Environment

CERCLA guidance calls for an appropriate combination of treatment technologies, engineering controls, and institutional controls to achieve overall protection of human health and the environment. More than 90% of the source material from the Site already has been permanently removed and treated through incineration. Under Alternative 2, the free-phase LNAPL that remains will be collected to the extent practicable, and removed from the trenches and incinerated. The trenches also will serve as a barrier to LNAPL migration. Deed restrictions will prevent exposure to residual LNAPL in the subsurface. This approach is fully consistent with, and endorsed by EPA's recent guidance regarding remedial strategies for LNAPL contaminated sites:

> "Although . . . NAPLs are generally viewed as principal threat wastes, program experience has shown that removal and or in-situ treatment of NAPLs may not be practicable. Hence, EPA generally expects that the quantity of free-phase NAPL (i.e., "free product") should be reduced to the extent practicable and that an appropriately designed containment strategy should be developed for NAPLs that cannot be removed from the subsurface."

Rules of Thumb For Superfund Remedy Selection, EPA, August 1997.

3. Compliance with ARARs

Alternative 2 complies with applicable or relevant and appropriate requirements (ARARs) as follows:

- The Illinois groundwater requirements of 35 IAC 620 would be met by establishing a groundwater management zone (GMZ). (A GMZ is required under all alternatives).

- The remedy would be constructed outside the 100-year flood plain. The passive collection trenches (and excavation wells, if needed) would be constructed so that local flooding would not interfere with the remedial operation.

- Contaminated soil and LNAPL removed from the Site would be managed in accordance with applicable waste management requirements as applicable under the Resource Conservation and Recovery Act (RCRA) and/or Toxic Substances Control Act (TSCA).

4. Long-Term Effectiveness and Permanence

Most of the source material at the Site has already been removed and treated by incineration. Alternative 2 prevents any additional migration of residual LNAPL and further reduces the quantity of free-phase LNAPL, via collection and incineration.

5. Reduction of Toxicity, Mobility and Volume Through Treatment

As a result of the earlier remedial action, more than 90% of source material was removed and treated. Alternative 2 will further reduce toxicity, volume and mobility through removal and treatment of free-phase LNAPL collected in the trenches.

6. Short-Term Effectiveness

The construction of the passive LNAPL collection system would be completed in a short time-frame of approximately four months. The installation would be subsurface with access via manholes (much like a sewer system), thereby allowing long-term beneficial use of the property. During installation, worker protection and offsite protection would be provided using established environmental construction protocols.

7. Implementability

LNAPL collection using trenches, deed restrictions, groundwater extraction, and monitoring all utilize established technology and procedures which do not pose implementation problems.

8. Cost

Alternative 2 is estimated to cost $5.9 million (for a total Site investigation and remedial cost of about $16.9 million). Alternative 2 represents the least costly, ARAR-compliant alternative. The other alternatives considered in the FS all are significantly more expensive, yet will not reduce the level of risk associated with the Site.

9. Community Acceptance

Community acceptance will be evaluated during the public comment period. Preliminary considerations show that Alternative 2 would be attractive to the local community because it avoids disruption to traffic along Jeans Road, allows anticipated land use, avoids the safety concern of excavating near high pressure petroleum pipelines, and minimizes noise pollution which would result from excavation alternatives.

10. State Acceptance

Comments on the proposed remedy are being prepared by the IEPA.

B. Alternative 9A

1. Description

Alternative 9A shares deed restrictions, groundwater monitoring, and a groundwater interception contingency in common with Alternative 2. Under 9A, the LNAPL and LNAPL contaminated soil would be removed by excavation of the soil and bedrock. Free-phase LNAPL would be incinerated offsite and LNAPL contaminated soil would be treated by stabilization and solidification and placed back within the excavation. The cost of Alternative 9A is estimated to be $12.3 million, for total Site investigation and remedial costs of about $23.3 million. Alternative 9A raises a number of unresolved issues which are addressed in this section. Consideration of those issues suggests that Alternative 9A is unnecessary, in that it costs more than twice what Alternative 2 would cost without any risk reduction benefit. In addition, the costs of Alternative 9A, in all likelihood, are understated.

2. Issue 1- Alternative 9A Does Not Reduce the Risk.

USEPA's experience with LNAPL sites shows that complete removal of LNAPL generally cannot be achieved. The residual LNAPL at the Lenz Oil Site is in the bedrock as well as in soil. For that reason, all parties agree that it will not be possible to completely remove the LNAPL, and that institutional controls are necessary to address the risk associated with the LNAPL that will not be removed. In addition, Alternative 9A presents increased risk of exposure to nearby residents and site workers in the process of excavating and stabilizing soils. Under the circumstances, the substantial additional cost of implementing Alternative 9A cannot be justified.

3. Issue 2 - Alternative 9A Does Not Consider Onsite Landfill Costs.

Any remedy which includes excavation of contaminated material, treatment and placement of the treated material onsite potentially raises concerns regarding the applicability of limitations imposed by RCRA on such an approach. At Lenz Oil, we understand that USEPA may invoke RCRA Corrective Action Management Unit (CAMU) principles to attempt to address these concerns. We also understand that IEPA maintains the substantive requirements for solid waste landfills in Illinois would have to be met to provide assurance that the CAMU is sufficiently protective. The substantial additional costs associated with meeting these requirements are not included in the cost estimate for Alternative 9A.

4. Issue 4 - Excavation Presents Unique Community Acceptance Issues.

If excavation is selected for the Site, it will be necessary to remove and relocate Mrs. Williams, who is in her eighties and has indicated a strong desire to continue to live in her

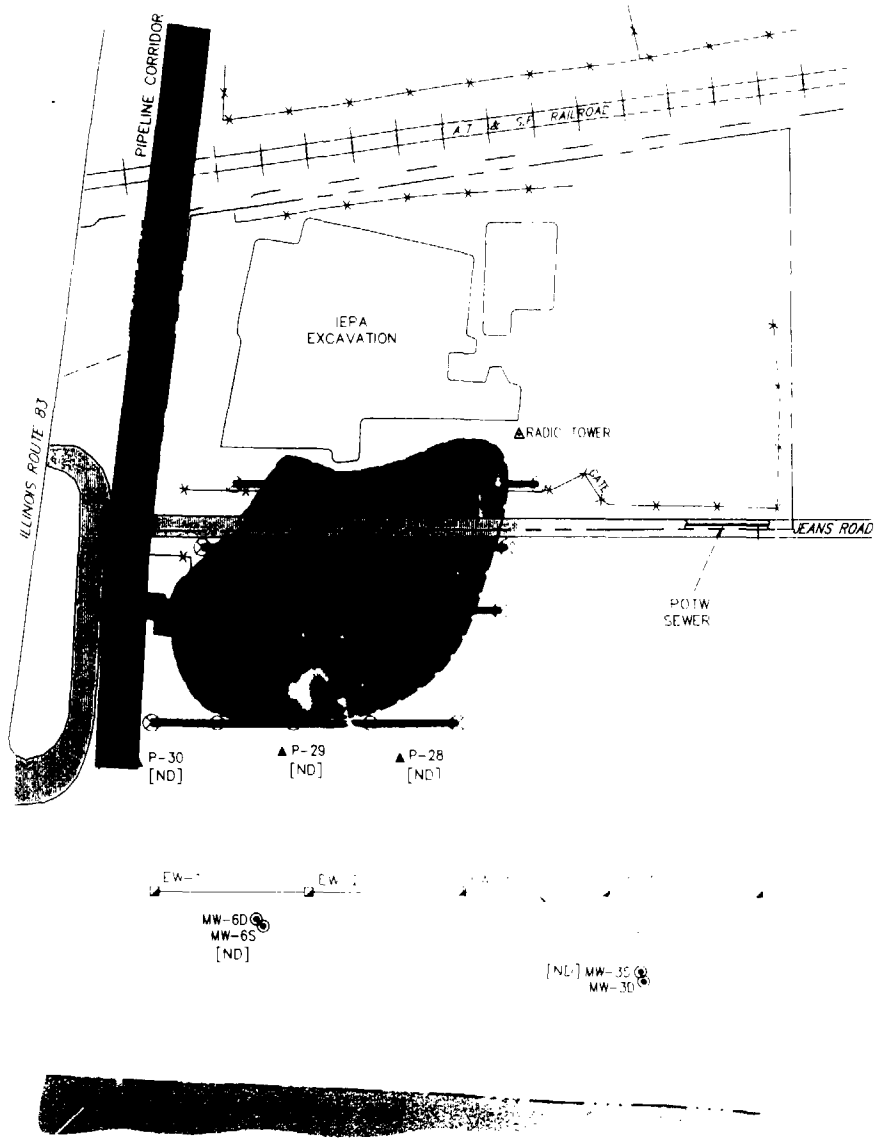
home on the Tameling Property. In addition, the excavation would require that a heavily traveled roadway (Jeans Road) be shut down for significant periods of time. The LNAPL area is adjacent to high pressure petroleum pipelines, which present difficult construction, safety and environmental concerns if excavation is selected.

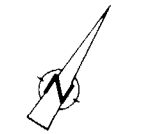
C. Alternative 10

Alternative 10 involves the use of Vacuum Enhanced Recovery (VER) to recover free-phase LNAPL, rather than by excavation. VER adequately addresses many of the unresolved issues mentioned above associated with excavation. Therefore, Alternative 10 clearly is preferable to Alternative 9A. However, Alternative 10 is almost twice as expensive as Alternative 2, and, as with Alternative 9A, does not present any significant risk reduction benefit. Therefore, Alternative 10 is not acceptable.

IV. CONCLUSION

The National Remedy Review Board was created as part of an effort "aimed at accelerating the pace and reducing the cost of cleanups, streamlining remedy selection, increasing fairness, promoting economic redevelopment, and better integrating Federal and State cleanup programs." Alternative 2 clearly promotes these objectives. Alternative 2 allows the property to be redeveloped quickly, and it provides an equivalent level of risk reduction as other, far more expensive, alternatives. More importantly, when consideration is afforded to State's effort in removing the principal threat posed by the Site, Alternative 2 not only satisfies, but surpasses the goals and objectives of CERCLA and USEPA's guidance. For these reasons, the Board should recommend that Alternative 2 be chosen as the appropriate remedial alternative for the Site.





- AREA OF PREVIOUS IEPA EXCAVATION
- ESTIMATED LIMITS OF LNAPL
- DRAINAGE DITCH
- FENCE LINE
- PROPERTY LINE
- RAILROAD TRACKS
- MW-6D ◉ EXISTING MONITORING WELL LOCATION AND IDENTIFIER
- P-30 ▲ CRA PIEZOMETER LOCATION AND IDENTIFIER
- COLLECTION SUMP
- CLEANOUT MANHOLE
- PASSIVE COLLECTION TRENCH
- CONTINGENCY EXTRACTION WELL LOCATION
- [ND] INDICATES VOCs NOT DETECTED IN GROUNDWATER SAMPLE COLLECTED ON SEPTEMBER 10, 1997

figure 1

SITE PLAN
LENZ OIL SITE
Lemont, Illinois

6771(1)-NOV 11/97-REV 0 (M-02)(MN)

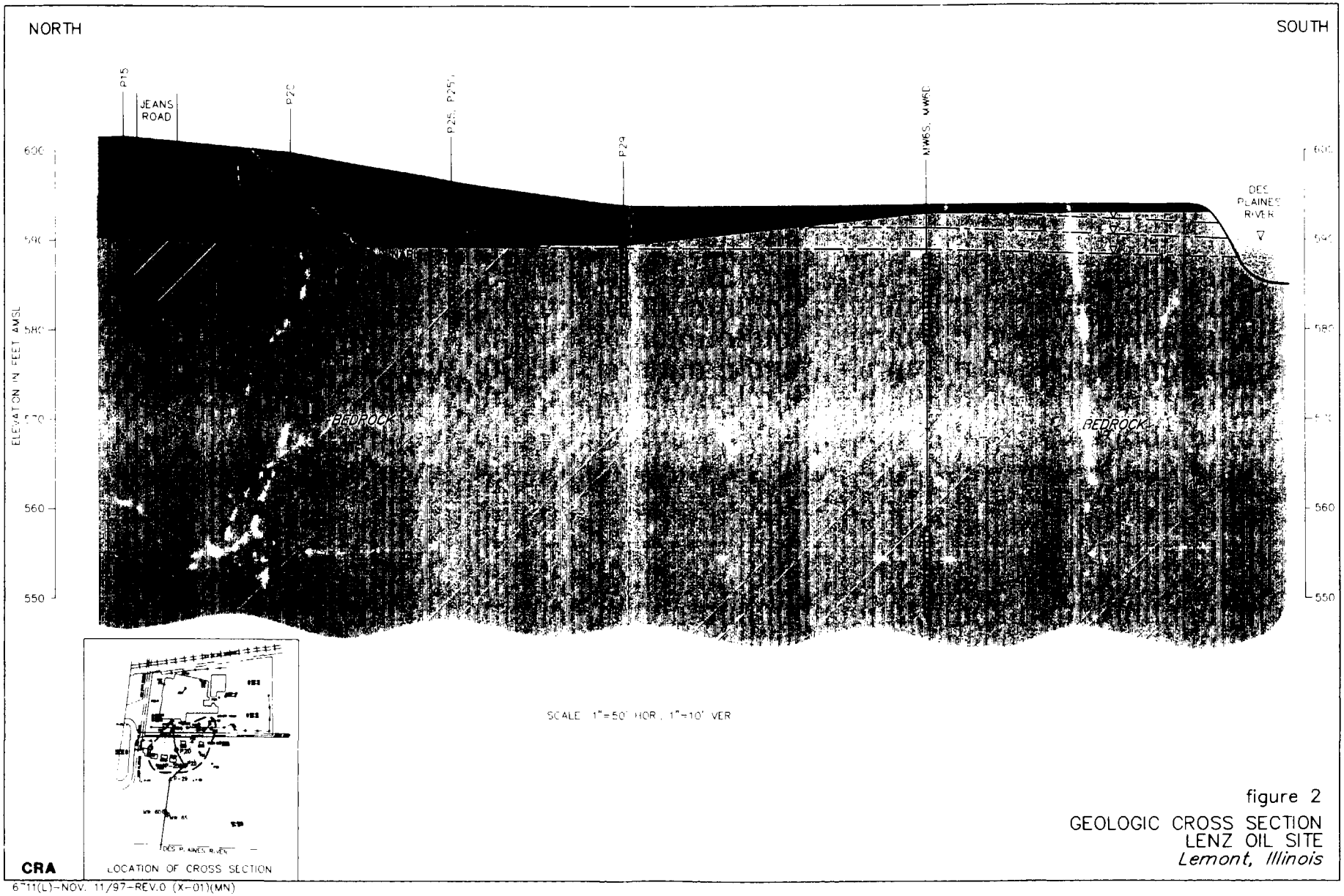


figure 2

GEOLOGIC CROSS SECTION
LENZ OIL SITE
Lemont, Illinois

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